

Amazon Sales Analysis Report

Period: 2 February – 2 April 2025
Dataset Size: 250 transactions | 10 customers

1. Executive Summary

This report analyzes Amazon sales transactions over a two-month period to assess sales performance, customer behavior, and operational efficiency.

Total recorded sales amount to **\$243,845**, however **only 36.31% of orders are completed**, indicating a significant revenue realization gap. A large share of revenue remains **pending (37.03%) or cancelled (26.67%)**, primarily driven by high-value electronics and large appliances.

Sales performance is highly concentrated across:

- A small number of **high-value products**
- A limited **customer base (10 customers only)**

Key opportunities exist in **order fulfillment, inventory planning, and logistics optimization**, particularly for high-demand electronics and bulky appliances.

2. Dataset Overview

- **Total Orders:** 250
- **Total Units Sold:** 714
- **Total Sales Value:** \$243,845
- **Unique Customers:** 10
- **Product Categories:** Electronics, Home Appliances, Clothing, Footwear, Books
- **Order Statuses:** Completed, Pending, Cancelled

3. Descriptive Statistics/ Data profiling

Sales Distribution Summary

Metric	Price (\$)	Quantity	Sales (\$)
Mean	343.6	2.86	975.4

Median	~450	3	~1,000
Minimum	15	1	15
Maximum	1,200	5	6,000
Standard Deviation	380.6	1.43	1,252
Q1 (25th %)	400	2	100
Q3 (75th %)	600	4	1,500
IQR	200	2	1,400

Interpretation

- **Order quantities are stable**, with most orders containing 2–4 items.
- **Revenue is highly volatile**, as shown by the large standard deviation in sales.
- The distribution shows a **long-tail pattern**, where a small number of high-value orders contribute disproportionately to total revenue.
- This indicates dependency on **high-priced electronics and appliances** rather than volume-based sales.

4. Sales Performance Insights

- **Total Sales:** \$243,845
- **Completed Sales:** \$88,530 (36.31%)
- **Pending Sales:** 37.03%
- **Cancelled Sales:** 26.67%

Key Observations

- Nearly **64% of total sales value is not yet realized**, representing major revenue risk.
- Highest sales days:
 - **February 3** (4.67% of total sales)

- **February 10** (4.47%)
- Lowest sales day:
 - **March 27** (0.006%)

5. Product Performance Analysis

Revenue by Product

- **Top Products by Sales**
 - Refrigerators: \$78,000
 - Laptops: \$58,400
- **Lowest Product**
 - Books: \$1,035

Completed Sales Leaders

- Laptops: \$25,600
- Refrigerators: \$22,800

Revenue at Risk

- Refrigerators have:
 - Highest cancelled sales: \$24,000
 - Highest pending sales: \$31,200

This indicates that **high-value appliances drive both revenue and operational issues.**

6. Product Quantity Insights

- **Highest Quantity Sold**
 - Smartphones: 106 units
 - Smartwatches: 97 units
- **Lowest Quantity Sold**
 - Washing Machines: 45 units
 - T-Shirts: 53 units

Order Status by Quantity

- **Completed Orders:** Smartphones (46), Smartwatches (44)
- **Cancelled Orders:** Headphones show the highest cancellations (18)
- **Pending Orders:** Books have the highest pending quantity (43)

7. Category Insights

- **Electronics dominate:**
 - Total sales
 - Completed revenue
 - Quantity sold
- **Books consistently underperform** across all metrics.

This confirms that **business performance is highly dependent on electronics**.

8. Customer Insights

- Only **10 customers generated all 250 orders**, indicating extreme customer concentration.
- Most active locations:
 - Houston (32 orders)
 - Miami (31 orders)
- Most frequent buyers:
 - Emma Clark (32 orders)
 - Jane Smith (30 orders)

Order Behavior

- Highest completed orders: Emma Clark (16)
- Highest cancelled orders: Jane Smith (13), David Lee (11)
- Highest pending orders: David Lee (12)

Business Implication

This level of concentration increases:

- Revenue volatility
- Dependency risk
- Exposure to customer churn

9. Key Findings & Risks

Key Findings

- High-value electronics and appliances drive revenue.
- Quantity sold is stable; revenue is volatile.
- Only 36% of total sales are completed.
- Electronics dominate across all performance metrics.

Key Risks

- Large share of revenue stuck in pending orders.
 - High cancellation rates for bulky appliances.
 - Logistics and fulfillment issues for high-price items.
 - Over-reliance on a small customer base.
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10. Business Recommendations

1. Improve Order Fulfillment

Reduce pending orders from **37% to below 20%** by prioritizing supplier reliability and faster processing for high-demand electronics.

2. Optimize Inventory Planning

Increase stock levels for Smartphones, Laptops, Smartwatches, and Refrigerators while limiting exposure to low-performing categories.

3. Enhance Logistics for Large Appliances

Partner with specialized logistics providers and improve delivery scheduling to reduce cancellations of Refrigerators and Washing Machines.

4. Convert Pending Orders

Use automated reminders, transparent delivery timelines, and targeted incentives to convert pending orders into completed sales.

5. Reduce Customer Concentration Risk

Introduce loyalty programs and targeted acquisition strategies to diversify the customer base.

6. Replicate Peak Sales Periods

Analyze promotional strategies around early February peaks and replicate them through targeted campaigns.